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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/510,700

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Dong-Hun Yoon

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4322

2292 7590 12/01/2008  
BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER

BARHAM, BETHANY P

ART UNIT

PAPER NUMBER

1615

NOTIFICATION DATE

DELIVERY MODE

12/01/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/510,700	<b>Applicant(s)</b> YOON ET AL.	
	<b>Examiner</b> BETHANY BARHAM	<b>Art Unit</b> 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 12, 13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 12, 13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Summary***

Receipt of Applicant's Amended Claims and Response filed on 8/14/08 is acknowledged. Claims 1, 12-13 and 15-17 are pending. Claims 1, 12-13 and 15-17 are rejected.

## **MAINTAINED REJECTIONS**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,432,453 B1 ('453) in view of US 7,090,886 ('886) or US 7,141,265 ('265).

The instant claims are drawn to a fat composition of high purity diglyceride comprising: 85% to 99.9 % by weight of a diglyceride containing 0.1 to 80 % by weight of a conjugated linoleic acid; wherein the conjugated linoleic acid is cis-9, trans-11 octadecadienoic acid or trans-10, cis- 12 octadecadienoic acid.

- '453 teach food supplement compositions comprising glycerol esters of conjugated linoleic acid, wherein the glycerol esters are selected from the group

consisting of monoglyceride, diglyceride, triglyceride and mixtures thereof ('453 abstract, claims 1-3). '453 also teach various methods of preparing the diglycerides of conjugated linoleic acid such as transesterification, or via acid by reacting CLA and glycerol from a mixture of cis-9, trans-11 CLA and trans-10, cis12 CLA ('453, col. 5, lines 25-41) (according to the limitation of instant claim 1).

- '453 teaches that the CLA glycerol ester is provided in the dietary supplements from about 32% to about 91% by weight of the conjugated linoleic acid (claim 1) and that the glycerol ester is selected from the group consisting of monoglyceride, diglyceride triglyceride and mixtures thereof (claim 2) (according to the limitation of instant claim 1).
- '453 does not teach specific percentage of the glyceride components, but does teach mixtures thereof of DG, MG, TG.
- '886 teaches a fat composition comprising 60-100% of a diglyceride (DG) (abstract) (according to the limitation of instant claim 1). Table 1 teaches examples where the DG is present in an amount greater than 85%, triglyceride (TG) is 13.4-16.4 and monoglyceride (MG) is 1.1-3.4 (according to the limitation of instant claims 12-13). '886 teaches that the MG is incorporated in an amount of 0.1-1.5%, most preferred (col. 3, lines 55-60) and the TG is incorporated in an amount of 6-24.9%, most preferred (col. 3, line 67-col. 4, line 3).
- Table 5 teaches another example of DG greater than 85% and that the conjugated amount is 16.4% (according to the limitation of instant claims 15-17).

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- '265 teaches a fat powder comprising components A, B, and C; A 15-79.9% of a glyceride mixture containing 5-84.9% of triglyceride, 0.1-5% of monoglyceride and 15-94.9% of diglycerides (abstract) (according to the limitation of instant claims 12-13 and 15-17). '265 teaches that diglycerides include 1,2-diglyceride and 1,3-diglyceride (col. 2, line 55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine '453 in view of '886 or '265. '453 generically teaches a composition of mono-, di- and tri-glycerides including CLA in the percentage instant claimed, while '886 or '265 teaches the amount of each glyceride to include in such a composition. One of ordinary skill in the art would have been motivated to combine since all teach fat compositions comprising a mixture of glycerides including diglycerides for food and food supplementation with '886 or '265 teaching the percentage of diglycerides and '453 teaches the cis-9, trans-11 CLA and trans-10, cis-12 CLA mixture contains diglycerides. One of ordinary skill in the art would have a reasonable expectation of success in formulating the composition of '453 in view of '886 or '265, since both teach the same components in a fat composition for food supplementation. The product of '453 containing CLA diglycerides could easily be made by the skilled artisan in the amounts instant claimed using a known techniques and preferred ranges taught by '886 or '265.

Claims 1 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0147356 A1 ('356) in view of US 7,090,886 ('886) or US 7,141,265 ('265).

The instant claims are drawn to a fat composition of high purity diglyceride comprising: 85% to 99.9 % by weight of adiglyceride containing 0.1 to 80 % by weight of a conjugated linoleic acid; wherein the conjugated linoleic acid is cis-9, trans-11 octadecadienoic acid or trans-10, cis- 12 octadecadienoic acid.

- '356 teaches food supplement compositions comprising glycerol esters of conjugated linoleic acid, wherein the glycerides are comprised of a blend of monoglyceride, diglyceride, and/or triglyceride and mixtures thereof ('356 abstract, claims 1, 3, 5). '356 also teaches various methods of preparing the diglyceride conjugated linoleic acid such as dehydrating castor oil, or isomerizing vegetable oil and that the isomers of cis-9, trans-11 CLA and trans-10, cis12 CLA are preferred ([0032, 0036], claims 11-16) (according to the limitation of instant claim 1).
- '356 does not teach specific percentage of the glyceride components, but does teach mixtures thereof of DG, MG, TG.
- '886 teaches a fat composition comprising 60-100% of a diglyceride (DG) (abstract) (according to the limitation of instant claim 1). Table 1 teaches examples where the DG is present in an amount greater than 85%, triglyceride (TG) is 13.4-16.4 and monoglyceride (MG) is 1.1-3.4 (according to the limitation of instant claims 12-13). '886 teaches that the MG is incorporated in an amount of 0.1-1.5%, most preferred (col. 3, lines 55-60) and the TG is incorporated in an amount of 6-24.9%, most preferred (col. 3, line 67-col. 4, line 3).

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- Table 5 teaches another example of DG greater than 85% and that the conjugated amount is 16.4% (according to the limitation of instant claims 15-17).
- '265 teaches a fat powder comprising components A, B, and C; A 15-79.9% of a glyceride mixture containing 5-84.9% of triglyceride, 0.1-5% of monoglyceride and 15-94.9% of diglycerides (abstract) (according to the limitation of instant claims 12-13 and 15-17). '265 teaches that diglycerides include 1,2-diglyceride and 1,3-diglyceride (col. 2, line 55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine '356 in view of '886 or '265. '356 generically teaches a composition of mono-, di- and tri-glycerides including CLA in the percentage instant claimed, while '886 or '265 teach the specific amounts of each glyceride that are capable of being included in such a composition. One of ordinary skill in the art would have been motivated to combine since both teach a fat composition comprising a mixture of glycerides including diglycerides for food and food supplementation with '886 or '265 teaching the percentage of diglycerides and '356 teaches the cis-9, trans-11 CLA and trans-10, cis12 CLA mixture contains diglycerides. One of ordinary skill in the art would have a reasonable expectation of success in formulating the composition of '356 in view of '886 or '265, since both teach the same components in a fat composition for food supplementation. The product of '356 containing CLA diglycerides could easily be made by the skilled artisan in the amounts instant claimed using a known techniques and preferred ranges taught by '886 or '265.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 12-13 and 15-17 have been considered but are not persuasive. Applicant argues that '886 and '256 are directed to unconjugated linoleic acid compositions of diglyceride and that they cannot be combined with art '453 or '356 that teaches CLA compositions of diglycerides. The Examiner respectfully disagrees as all the art is directed to fatty compositions containing mixtures of mono, di and triglycerides and therefore is analogous. '886 and '256 are simply relied upon to show that compositions of high diglyceride content are known and made by the skilled artisan and that the generic teaching of '453 or '356 of cis-9, trans-11 CLA and trans-10, cis-12 CLA mixture containing diglycerides is also known by the skilled artisan, the same technique for obtaining the high purity diglyceride formulation of '886 or '256 in the compositions advanced by '453 or '356 would therefore not be beyond the purview of the skilled artisan. Applicant argues that Examples in '453 or '356 are drawn to high triglyceride or monoglyceride content and therefore are a teaching away from the instant claimed high diglyceride content. The Examiner respectfully points out that '453 and '356 generically claim the same composition as instant claimed. A patenting of the instant claims would read on the claims of '453 and '356, which all teach a fat composition comprising a mixture of mono, di and triglycerides of conjugated linoleic acid. Thus the claims are generically directed to the same fat composition invention of '453 or '356 and in combination with '886 and '256 the skilled artisan would know how to obtain a high diglyceride percent composition. The art relied upon teaches



that the ranges as instant claimed are not novel or unobvious but in fact that the diglyceride ranges are known and used in other fat compositions.

### ***Conclusions***

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bethany Barham whose telephone number is (571)272-6175. The examiner can normally be reached on M-F, 8:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 571-272-8373. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bethany Barham  
Art Unit 1615

/Michael P Woodward/  
Supervisory Patent Examiner, Art Unit 1615  
16 November 2008